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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,426	07/06/2001	Andrew Daiber	NUFO002	4971

7590 10/23/2002

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EXAMINER
VY, HUNG T

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/900,426	DAIBER ET AL.	
	Examiner	Art Unit	
	Hung T Vy	2828	

-- Th MAILING DATE of this communication appears on th cover sheet with th corr spondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Paul Ip

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. In response to the communications dated 07/06/2001, claims 1-30 are pending in this application.

Acknowledges

2. Receipt is acknowledged of the following items from the Applicant.

Information Disclosure Statement (IDS) filed on 02/21/2002 and made of record as Paper No. 2.

Specification

3. The specification is objected to for the following reason:

On page 10, line 7, page 11, line 26 and page 19, line 23, the inventor miss fill the application ser. Nos. are missing. Applicants have to provide the U.S. Patent Application Ser. Nos.

The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejection - Double Patenting

4. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

5. Claim 21 of this application conflict with claim 1 of Application No. 2002/0136104 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have a laser apparatus, comprising: a coherent beam, a tunable element, and a detector as claim 21.

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth insection 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20,21, 22, 24, 26 and 28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Shimada et al., U.S. patent No. 4,460,977 in view of Asano et al., U.S. Patent No. 6,044,095.

Regarding claims 21, 24, 26, and 28, Shimada et al. disclose a laser apparatus, comprising:

(a) a gain medium emitting (1) a coherent beam along an optical path;

(b) a reflector positioned in said optical path and defining a laser cavity (See fig. 6); and terminal voltage (6) at sensor terminal (6) but Shimada et al. do not disclose the voltage sensor. However Asano et al. disclose (c) a voltage sensor operatively coupled to said gain medium (11) and configured to monitor voltage across said gain medium, said monitored voltage across said gain medium indicative of optical losses associated with said cavity.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify to have the voltage connecting to the gain medium because those skilled in the art will recognize that such modification and variations can be made the laser stable without departing from the spirit of the invention.

It would have been obvious to provide shimada et al with the limitations as taught or suggested by Asano et al.

Regarding claims 22, and 29, Asano et al. disclose a control system operatively (16) coupled to said voltage sensor (14) and to a loss element positioned in said optical path in said cavity, said control system configured to adjust said loss element according to said monitored voltage across said gain medium (See fig 18 on Asano et al. and Fig 6 in Shimada et al.)

7. Claims 23, 25, 27 and 30 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Shimada et al., U.S. patent No. 4,460,977 in view of Asano et al., U.S. patent 6,044,095 and further in view of Van Dijk U.S. patent No.4, 847,854.

Regarding claims 23, 25, Shimada et al. and Asano et al. disclose the apparatus of laser but Shimada et al. and Asano et al. do not disclose a dither element operatively coupled to said loss element and configured to introduce a frequency dither to said loss element, said frequency dither detectable in said monitored voltage across said gain medium. However, Van Dijk discloses a dither element operatively (See column 14, line 51-52).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify to have a dither element operatively because those skilled in the art will recognize that such modification and variations can be made the laser stable without departing from the spirit of the invention.

It would have been obvious to provide shimada et al and Asano et al. with the limitations as taught or suggested by Van Dijk.

With respect to claims 1-20, the methods for operating a laser are considered as product by process steps.

Citation of Pertinent References

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Yoshikawa et al. disclose Semiconductor Laser Driving Circuit, U.S. Patent No. 5,163,063.

The patent to Flanders discloses Stepped Etalon Semiconductor Laser Wavelength Locker, U.S. Patent No. 6,366,592.

The patent to Javan discloses Generation of Pulsed Laser Radiation At a Finely Controlled Frequency by Transient Regerative Amplification, U.S. Patent No. 4,410,992.

The patent to Decain et al. disclose Interferometer Method for Providing Stability of a Laser, U.S. Patent No.6, 259,712.

Conclusion

9. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung VY whose telephone number is (703) 605-0759. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Art Unit 2828

October 10, 2002